

Interdisciplinary Research on Urban Sanitation in Kampala's Slum Settlements – Preliminary Results

Understanding the sanitation situation and behaviour among urban slum dwellers is the focus of a joint four-year transdisciplinary NCCR North-South and EU Water Initiative Splash U-ACT research project. The research conducted in Kampala, Uganda, aims at understanding the main social and economic drivers as well as the constraints regarding access and sustained use of on-site sanitation facilities in poor urban contexts. Innocent K. Tumwebaze¹, Alexandra Horst², Christoph Lüthi¹

Research objective

Researchers of Eawag/Sandec and the Centre for Development and Cooperation (Nadel) at ETH Zurich are jointly conducting this transdisciplinary research. Two PhD students (one in environmental psychology and one in development economics) are involved in this project. Both dissertations will contribute to gaining a deeper understanding of the main psychological and economic determinants affecting demand and use of sanitation facilities in urban poor settlements.

Environmental psychology

Guided by the hypothesis that *“Improving demand for sanitation facilities and proper use leads to increased construction and sustainable behavioural use”*, the general question of this research component is to investigate the main constraints for household demand and behaviour towards improved sanitation. It aims to develop psychosocial interventions targeting two focal areas: (i) demand stimulation and (ii) improved behaviour to ensure sustainable use and cleanliness of the facilities. The main objectives of specific research are to:

- Understand the main psychological determinants of the current sanitation situation in urban slum communities.
- Develop, test and evaluate psychosocial interventions based on the above findings to assess their effects on increasing sanitation demand and sustainable behavioural use of the facilities.

The findings from this investigation will contribute to the international debate on ways to achieve sustainable urban sanitation that will hopefully lead to a better understanding of the key factors influencing household sanitation behaviour, especially by tenants. We also

plan on developing guidelines and tools using psychosocial techniques to promote behavioural change in future sanitation research and project planning.

Development economics

The economic component of this sanitation research aims at identifying and analysing the key economic constraints as well as the sanitation preferences of poor households that underlie the persistent low private investment in sanitation facilities in poor urban settlements. Based on different user and financing arrangements, this research component will analyse the urban poor's willingness to pay for improved sanitation. Analysis of the baseline survey will lead to designing demand-led financing options to sustainably improve the sanitation uptake rate among the urban poor. These financing options will be tested and

implemented in a randomised pilot project in coordination with a local NGO in Kampala. Based on a follow-up survey of all initially interviewed households, it will be possible to conduct a comprehensive evaluation on the effectiveness of the financing options to improve the uptake and access to improved on-site sanitation facilities of Kampala's poor.

To our knowledge, this is the first empirical research on sanitation demand and economic aspects conducted in a poor urban context. It has direct development relevance, as potential economic solutions will not only be theoretically analysed, but also empirically evaluated. This study will therefore not only yield new insights on how to tackle urban sanitation in Uganda from an economic perspective, but our insights will also be of interest to other sub-Saharan African countries.

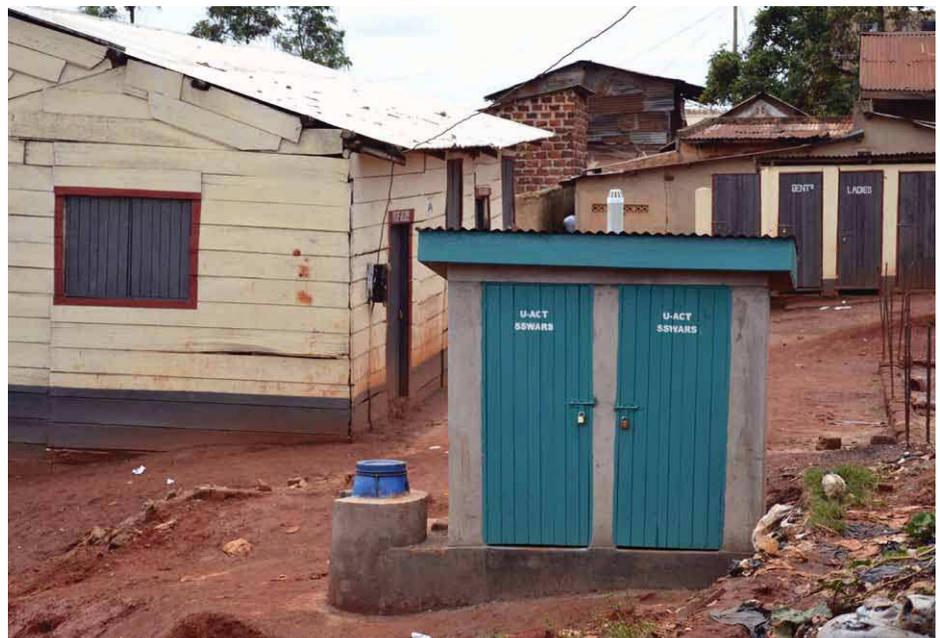
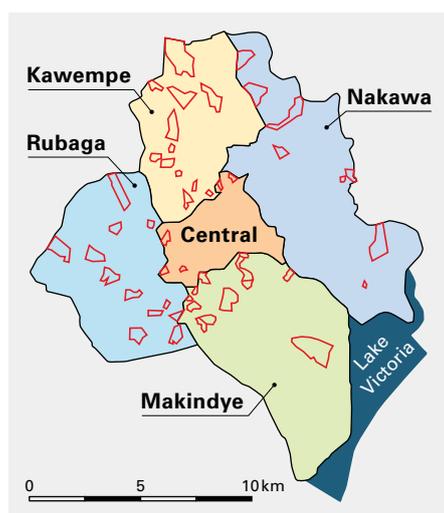


Photo 1: New double stance shared toilet facilities built in 2012 using targeted subsidies.



Map 1: Randomly selected low-income areas in Kampala from a list of 304 slum communities.

Preliminary results

The research team conducted a joint baseline survey in October and November 2010 to learn about the current sanitation situation in Kampala's low-income areas and answer some of our research questions. The survey, which covered 50 randomly selected slums from the five divisions (equivalent to districts) of Kampala city, interviewed 1500 randomly selected households (Map 1).

Analysis of the baseline survey revealed the following key findings:

- Over 99% of the respondents report to have access to sanitation facilities. However, the majority (84%) of the respondents share their facility with a large number of other households.
- About 70% of the sanitation facilities are simple pit latrines.
- Only 47% of the respondents have clean facilities.
- The majority (70%) of Kampala's slum dwellers are tenants.
- While house owners have higher long-term wealth in terms of asset ownership, the per capita income of house owners and tenants does not differ significantly.
- The cost of an improved and lined on-site sanitation facility in Kampala is high, i.e. about USD500 for a single stance VIP.
- Slightly over half (51.7%) of the respondents were not satisfied with their sanitation facilities – the majority of the dissatisfied respondents (65.9%) are users of shared facilities.
- A vast majority of the respondents (85%) had a rather negative attitude

towards sharing toilets with their neighbours.

- About 61% had used the facilities for <5 years, and around one fifth of the respondents had changed their facilities due to full pits.

More findings on our policy brief *"Where do Kampala's poor go? Urban sanitation conditions in Kampala's low-income areas"* can be downloaded from www.sandec.ch/sesp.

Interventions

Based on the survey findings, the issues of key importance relate to a lack of improved sanitation access due to high user numbers, unsatisfactory cleanliness, low demand, and the role of rental status for private investment in sanitation, including the high cost of a sanitation facility. The interdisciplinary nature of the research will allow us to address the above issues through different interventions.

Psychological interventions

Cleanliness is a constraint mainly among users of shared sanitation facilities. A set of two psychosocial interventions will therefore be piloted in 2012. The first intervention will focus on developing behavioural change techniques related to cleaning of shared toilets by tenant users. The second intervention will focus on the cost of the facilities based on persuasive arguments, such as how the "cost is not a cost", if sanitation merits are put into proper perspective. This will include the expressed demand factors from the tenants and landlords. In all the interventions, (pre-intervention, mid-term and final intervention), surveys will be conducted to assess their effectiveness.

Economic interventions

Based on the results of the baseline survey, the team responsible for the economic research aspects has designed demand-oriented financing options aiming at sustainably improving the sanitation uptake among Kampala's urban poor, and exploring the role of subsidies for increased sanitation coverage in urban slums. The implementation of these financing options, addressing about 1200 poor households, is currently on-going in 40 randomised slum areas. Once finalised and evaluated, it will be possible to determine how sanitation demand changes with price and financing arrangements.

Research relevance to Uganda

This research project will contribute to Uganda's overall sector development by:

- Providing information on the state of sanitation and potential policy-related interventions and planning options of sustainable sanitation – especially by piloting possible interventions at different scales. Most sector review reports lack information on slum sanitation. Our documentation and information sharing (e.g. policy briefs) will allow the data obtained to be shared with all sector players.
- Providing direct benefits to the participating communities. These benefits cut across the knowledge cues on the importance to invest and use improved sanitation facilities (Photo 1), on subsidies to house owners and landlords to purchase toilets and on enhancing collective sustainable use of the toilet facilities by the tenants in informal urban settlements.

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